YUE XIN

📞 (+86) 19821286629 ✉️ xinyuexiong@sjtu.edu.cn ⭘ machinephoenix

EDUCATION

Shanghai Jiao Tong University (SJTU)　　　　　　　　　　　　　　　　**June 2023 – Present**

M.S. in Information and Communication Engineering　　　　　　　　　　　　　　*Shanghai, China*

Shanghai Jiao Tong University (SJTU)　　　　　　　　　　　　　　　**Sep 2019 – June 2023**

B.S. in Electronic Science and Technology (major) and Computer Science and Technology (minor)　　*Shanghai, China*

- Grades for All Courses: 90.17/100　　GPA for All Courses: 3.89/4.3
- A(90+) for all math/physics related courses(Calculus, Physics, Probability and Statistics, etc) and most major related courses(Signals and Systems, Progamming, Optoelectronics, etc). A+(95+) for most major related experimental courses(Engineering Problem Modeling and Simulation, Engineering Practice and Technological Innovation).

RESEARCH INTERESTS

Machine Learning, Interpretable AI, Computer Vision

ACADEMIC RESEARCH EXPERIENCE

Institute of Media, Information and Network(min), SJTU　　　　　　　　　**Sep 2023 – Present**

Master's Student　　　　　　　　　　　　　　　　　　*Advisor: Hongkai Xiong, Wenrui Dai*

- Research on deep learning methods for nonlinear fitting of implicit function optimization.

Institute of Media, Information and Network(min), SJTU　　　　　　　　**Nov 2022 – Sep 2023**

Machine Learning and Computer Vision Intern　　　　　　　　　*Advisor: Hongkai Xiong, Wenrui Dai*

- Research on deep learning methods for nonlinear fitting of implicit function optimization.

Interpretable ML lab, SJTU　　　　　　　　　　　　　　　　　**Feb 2022 – Nov 2022**

Interpretable Machine Learning Intern　　　　　　　　　　　　　*Advisor: Quanshi Zhang*

- Explaining the reasons behind the challenges in adversarial training(Submitted for AAAI 2024).
- Dynamics of interactive learning.
- Robustness analysis of various complexity concepts.

SunnyLab, SJTU　　　　　　　　　　　　　　　　　　　　**Mar 2021 – May 2022**

Machine Learning and Computer Vision Intern　　　　　　　　　　　*Advisor: Chongyang Zhang*

- Swin Transformer-Based workpiece welding area instance segmentation.
- Space-Time filtering for false positive removal in pedestrian detection.
- YOLOv5-Based tower crane detection and dangerous tower crane Recognition, hoist detection, and electronic fence labeling.

PROJECT

CS368: Digital Image Processing Course Final Project | *Python, Pytorch*　　　**Oct 2021 – Feb 2022**

Implementing multi-object tracking and behavior recognition for soccer players using algorithms like ByteTrack, YOLOv5, and Kalman filtering, with file Transfer and visualized recognition results using Qt.

AI005: Deep Learning Practical on Huawei AI Platform Competition | *Python, Pytorch*　　**Oct 2021 – Feb 2022**

Secured the third place nationwide in the 'Cloud Pioneers' competition on Huawei Cloud by successfully completing the few-shot detection task.

EE458: Software Engineering Course Final Project | *Python, Pytorch, Java*　　**Sep 2021 – Jau 2022**

Training a YOLOv5 model on a face mask dataset and deploying it on mobile devices for real-time mask detection.

PUBLICATIONS

- **Why Adversarial Training of ReLU Networks Is Difficult?**
  Xu Cheng, Hao Zhang, Yue Xin, Wen Shen, Jie Ren, Quanshi Zhang.
  arXiv preprint arXiv:2205.15130, 2022.

ACADEMIC COMPETITION

The 12th National College Student Mathematical Competition: *First Prize*	**2020**
The 2nd National 'August 1st Cup' Online Mathematics Competition: *Tenth Place Nationwide*	**2020**
The Mathematical Contest in Modeling: *Meritorious Winner (First Prize)*	**2021**
The Huawei Cloud 'Cloud Pioneers' Few-Shot Detection Competition: *Third Place Nationwide*	**2021**

TECHNICAL SKILLS

Programming Languages: Familiar with Python, C++, Matlab, etc.

Deeping Learning: Familiar with PyTorch and common deep learning models.

Mathematics: Proficient in the application of mathematical concepts such as calculus, linear algebra, and probability statistics.

Foreign Language: CET-6: 563

HONORS & AWARDS

Outstanding Undergraduate Graduate of Shanghai Jiao Tong University	**2023**
National Scholarship (only one in my major)	**2021**
Shanghai Jiao Tong University A-Class Excellent Scholarship for Undergraduate (only one in my major)	**2021**
Shenzhen Stock Exchange Scholarship (only one in my major)	**2020**
Shanghai Jiao Tong University B-Class Excellent Scholarship for Undergraduate	**2020**
Outstanding Youth League Member at Shanghai Jiao Tong University	**2021**

ACTIVATIES & EXPERIENCE

Physics Subject Camp Counselor   **Sep 2020 – Jau 2021**
SJTU

School Table Tennis Team Member   **Sep 2019 – Present**
SJTU

College Table Tennis Team Captain   **Sep 2021 – Present**
SJTU   *School of Electronic Information and Electrical Engineering*
- Third Place in the Team Category at the Tizong Cup in 2021
- Second Place in the Team Category at the School Sports Meet in 2022

College Table Tennis Team and Club Head Coach   **Sep 2021 – Present**
SJTU   *Zhiyuan College*

School Track and Field Team Member   **Sep 2020 – May 2021**
SJTU
- Second Place in the Men's 4×100-Meter Relay at the School Sports Meet in 2020
- First Place in the Men's 4×100-Meter Relay at the 2021 Track and Field Athletics Meet